

## PROJECT DESCRIPTION

## GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AND STREET LIGHTING AT THE INTERSECTION OF MD 2 AND DALRYMPLE ROAD IN CALVERT COUNTY, MARYLAND. MD 2 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

## INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 2 APPROACHES OPERATING CONCURRENTLY AND THE DALRYMPLE ROAD APPROACH OPERATING ALONE.

## CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

## PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

## MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.02-01 (SHOULDER WORK)

STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

## PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

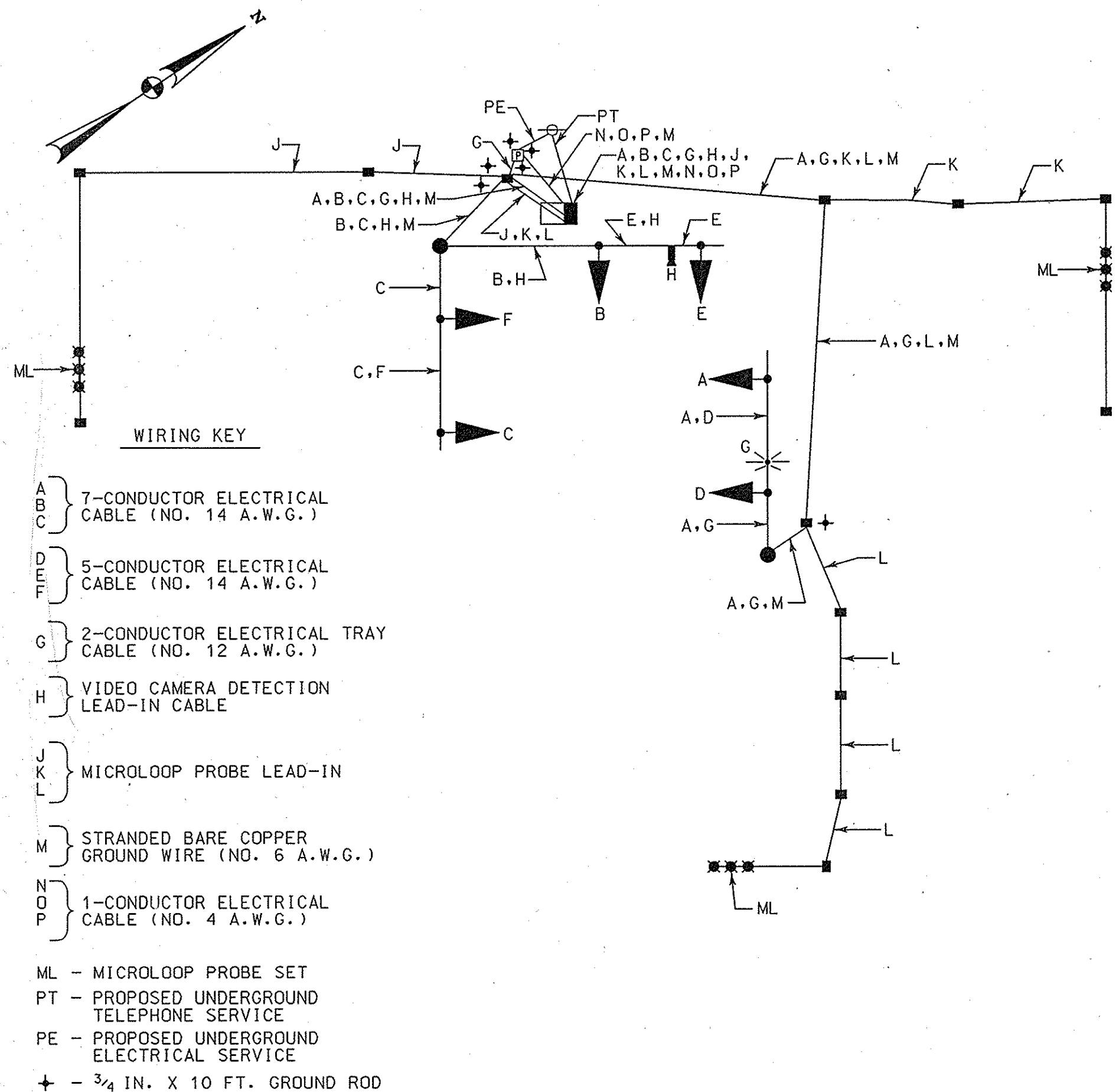
MS. KIMBERLY TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 841-1019

MR. JOHN S. MAYS  
DISTRICT UTILITY ENGINEER  
PHONE: (410) 841-1039

MR. CHUCK E. GEORGE  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 841-1013

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

## WIRING DIAGRAM



## EQUIPMENT LIST "A"

## A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9044	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS
9571	119 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : <ul style="list-style-type: none"><li>2 EACH D-3(1) SIGN (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT</li><li>2 EACH D-3(3) "Dalrymple Rd. Next Signal" SIGN (72 IN. X 24 IN.) -GROUND MOUNT</li><li>1 EACH M95-1 (72 IN. X 24 IN.) - MAST ARM MOUNT</li><li>1 EACH R3-5(R) (30 IN. X 36 IN.) - MAST ARM MOUNT</li><li>1 EACH W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (24 IN. X 24 IN.) AND FLAG - GROUND MOUNT</li><li>2 EACH W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW" PANEL (24 IN. X 24 IN.) AND FLAG - GROUND MOUNT</li></ul>

## EQUIPMENT LIST "C"

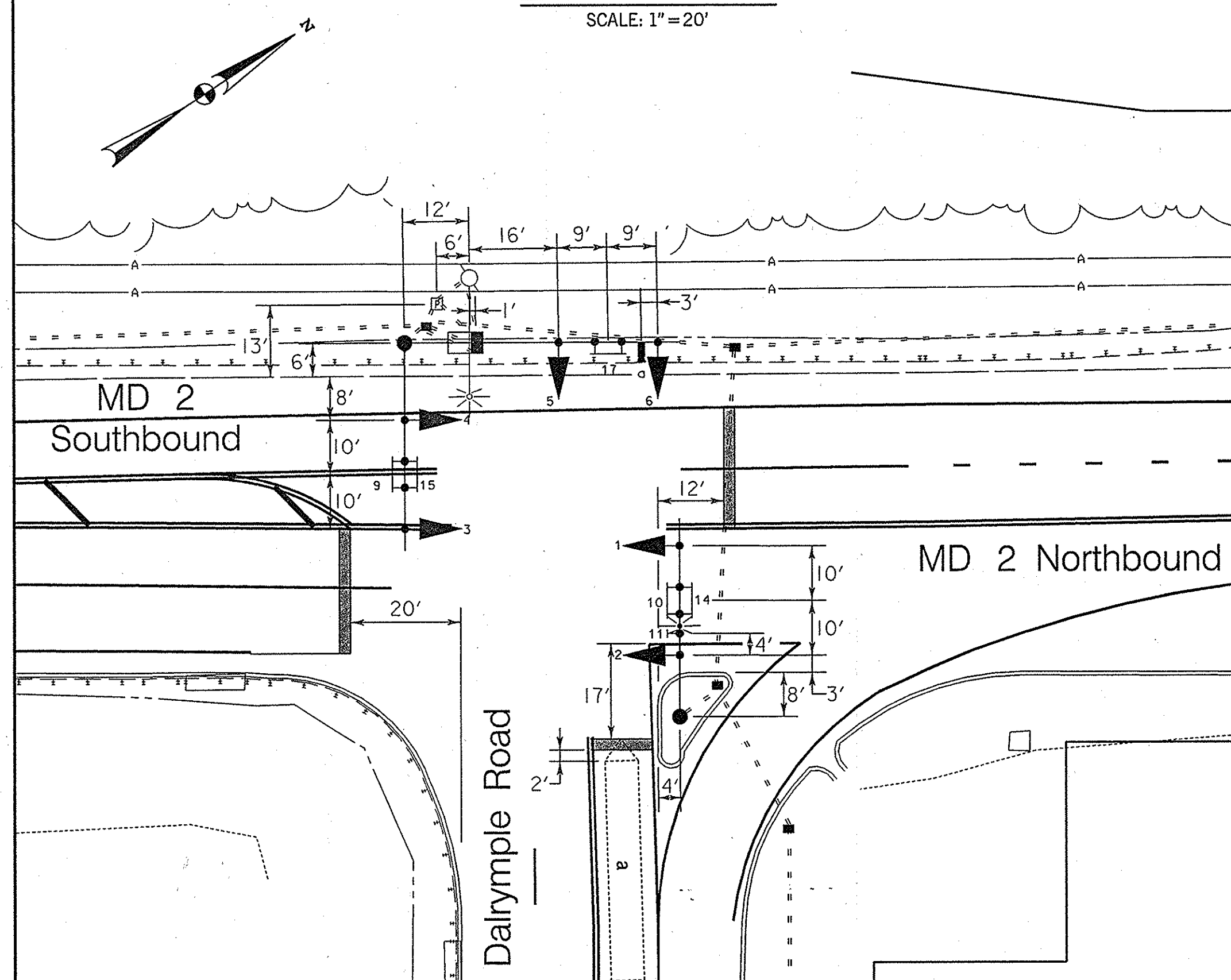
NO EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

## PHASE CHART

	1	2	3	4	5	6
	(R)	(R)	(R)	(R)	(R)	(R)
	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
	(G)	(G)	(G)	(G)	(G)	(G)
PHASE 2 AND 6	G	G	G	G	R	R
2 AND 6 CHANGE	Y	Y	Y	Y	R	R
PHASE 4	R	R	R	R	G	G
4 CHANGE	R	R	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R

## DIMENSION DIAGRAM

SCALE: 1"=20'



## EQUIPMENT LIST "B"

## B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	3 C.Y.	TEST PIT EXCAVATION
5001	20 L.F.	5 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5002	60 L.F.	5 INCH HEAT APPLIED YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5003	150 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5006	130 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6005	40 S.F.	4 INCH CONCRETE SIDEWALK
8001	8 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
8003	12 EACH	12 INCH RED OR GREEN LED SIGNAL HEAD SECTION
8004	6 EACH	12 INCH YELLOW LED SIGNAL HEAD SECTION
8014	1 EACH	CONTROL CABLE, 200 FT. VIDEO DETECTION CAMERA TO CONTROLLER
8029	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8043	160 L.F.	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
8044	190 L.F.	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8049	190 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8050	65 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8051	210 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8052	800 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8053	85 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8057	20 L.F.	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR WIRE SLEEVE
8058	1 EACH	METERED SERVICE PEDESTAL
8061	90 L.F.	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 A.W.G. - THHN/THWN
8063	1 EACH	MICROLOOP PROBE SET WITH 500 FOOT LEAD-IN CABLE
8066	2 EACH	NONINVASIVE DETECTOR WITH 1000 FOOT LEAD-IN CABLE
8067	13 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8069	77 S.F.	INSTALL GROUND MOUNTED SIGN
8070	42 S.F.	INSTALL OVERHEAD SIGN
8071	1 EACH	VIDEO DETECTION CAMERA
8075	1 EACH	STEEL POLE WITH A TWIN 50 FT. MAST ARMS
8076	1 EACH	STEEL POLE WITH A SINGLE 38 FT. MAST ARM
8084	1 EACH	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
8091	6 EACH	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8096	3 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8101	80 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
8102	410 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
8103	220 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.) TC
8105	60 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8107	1 EACH	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
8112	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
NEG.	60 L.F.	12 INCH HEAT APPLIED YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING

TOD No: AT717-19M  
SHA No: CA335A51/B51/M51  
Calvert County

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 2 AND Dalrymple Road

## GENERAL INFORMATION SHEET

SCALE	NONE	DATE	12/20/2005	CONTRACT NO.	AT7175185
DESIGNED BY	S. BLOSS	COUNTY	CALVERT		
DRAWN BY	S. BLOSS	LOGMILE			
CHECKED BY	N. LEARY	T.I.M.S. NO.	H245		
F.A.P. NO.		TOD NO.			
DRAWING NO.	TSP-2 - 2	OF	2	SHEET NO.	2 OF 2

**WR&A**

Whitman, Reardon  
and Associates, LLP  
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Baltimore, Maryland 21231  
(410) 235-3450